

The Impact of Digital Economy on Entrepreneurial Activity in Chinese Cities: Theoretical Mechanisms and Policy Recommendations

Deqin Chen¹, Si Liu², Haiqin Zheng¹, Xiangyu Du¹

¹ School of International Trade and Economics, Anhui University of Finance and Economics, Bengbu 233000, China

² School of Law, Anhui University of Finance and Economics, Bengbu 233000, China

Abstract: This study delves into the mechanism of the digital economy's impact on entrepreneurial activity in Chinese cities, and analyzes the role of the digital economy in enhancing entrepreneurial activity with empirical data. It is found that the digital economy significantly promotes the enhancement of urban entrepreneurial activity by reducing entrepreneurial costs, improving market efficiency, and optimizing resource allocation. Meanwhile, this study also puts forward targeted policy recommendations with a view to further utilizing the role of digital economy in promoting urban entrepreneurship development.

Keywords: Digital Economy; Urban Entrepreneurial Activity; Impact Mechanisms; Policy Recommendations.

1. Introduction

With the rapid development and popularization of information technology, the digital economy has become a new engine of global economic development. In China, digital economy is regarded as an important force to promote economic transformation and upgrading and realize high-quality development. Especially in the current context of "mass entrepreneurship and innovation", how the digital economy affects the entrepreneurial activity of Chinese cities has become a question worth exploring.

With its unique advantages, such as the rapidity of information circulation, the abundance of data resources and the low threshold of market access, the digital economy provides unprecedented convenience and opportunities for entrepreneurs. It has not only changed the traditional mode of entrepreneurship and reduced the cost of entrepreneurship, but also improved the accuracy of market forecasts and the efficiency of business operations through technical means such as big data and cloud computing. Therefore, the digital economy is likely to have a profound impact on urban entrepreneurial activity.

However, the impact of the digital economy on urban entrepreneurial activity is not single and linear. It may be constrained and moderated by a variety of factors, such as the level of regional economic development, the strength of government policy support, and the competitive market environment. These factors interact with the digital economy and together shape the entrepreneurial ecology of cities.

The purpose of this study is to explore in depth the mechanism of the digital economy's impact on entrepreneurial activity in Chinese cities, with a view to providing targeted recommendations for policy makers to further stimulate innovation and entrepreneurial enthusiasm in cities. By revealing the intrinsic link between digital economy and entrepreneurial activity, we expect to help cities better grasp the opportunities of digital economy development, optimize the entrepreneurial environment, and promote sustainable and healthy economic development.

In the study that follows, we will first analyze the direct impact of the digital economy on entrepreneurial activity in

cities, including aspects such as lowering entrepreneurial thresholds and improving market efficiency. Then, we will explore the interactions between the digital economy and other influencing factors, and how these interactions work together to affect entrepreneurial activity in cities. Finally, based on the above analysis, we will put forward a series of policy recommendations with a view to providing useful references for the development of digital economy and optimization of entrepreneurial environment in Chinese cities.

2. Mechanisms of the Digital Economy's Impact on Urban Entrepreneurial Activity

The mechanism of the digital economy's impact on the city's entrepreneurial activity is mainly reflected in the following aspects:

2.1. Lowering the Thresholds and Costs of Entrepreneurship

The digital economy has significantly lowered the barriers to entrepreneurship and initial investment costs through technology penetration. Specifically:

Lower cost of information technology: The popularization of advanced technologies such as cloud computing and big data has enabled enterprises to enjoy efficient data processing and information storage services without having to build their own expensive IT infrastructure. For example, through cloud services, startups can quickly build their own business platforms without the need to acquire and maintain large amounts of hardware equipment.

Easy access to information: In the digital economy, data such as market information, customer needs and industry trends are more easily accessible to entrepreneurs. This ease of access to information not only reduces the cost of market research, but also helps entrepreneurs make more informed decisions.

Remote Collaboration and Working: Digital tools such as video conferencing and online collaboration platforms enable startup teams to collaborate efficiently across geographic constraints, reducing the cost of renting and operating

physical space.

2.2. Provide Platforms and Opportunities for Innovation

The digital economy provides entrepreneurs with unprecedented innovation platforms and business opportunities, which are summarized in the following: **Emergence of emerging fields:** The rapid development of emerging fields such as e-commerce, sharing economy, online education, etc., provides entrepreneurs with abundant innovation directions and potential business models. **Market Expansion Opportunities:** The Internet platform enables entrepreneurs to easily reach potential customers around the world, breaking the geographical limitations of the traditional market and providing a broader market space for startups. **Customization and personalized services:** The digital economy enables products and services to be more personalized and customized to meet the diverse needs of consumers, providing entrepreneurs with opportunities to differentiate themselves from the competition.

2.3. Optimization of Resource Allocation and Efficiency Gains

The digital economy helps entrepreneurs achieve optimal allocation of resources and improve operational efficiency through big data analytics and artificial intelligence technologies, as shown in the following: **accurate forecasting and inventory management:** using big data analytics tools, entrepreneurs can more accurately forecast market demand, thus optimizing inventory management and reducing inventory backlog and waste. **Process automation and optimization:** by introducing AI technology, companies can automate some of their business processes to improve efficiency and reduce labor costs. **Customer Relationship Management:** The digital economy enables companies to gain a deeper understanding of customer needs and behavioral habits, so as to provide more accurate products and services and enhance customer satisfaction and loyalty.

2.4. Promoting an Atmosphere of Innovation and Entrepreneurship

The development of digital economy has played a positive role in promoting the formation of urban innovation and entrepreneurship atmosphere, which is manifested in the following ways: **dissemination of innovation culture:** the rise of digital economy is accompanied by the wide dissemination of innovation culture, which encourages more people to try and innovate. **Inspiration of Successful Cases:** A large number of successful entrepreneurial cases have emerged in the field of digital economy, which have stimulated the entrepreneurial enthusiasm of the general public and laid the foundation for the enhancement of entrepreneurial activity in the city. **Entrepreneurship education and training:** With the popularization of the digital economy, more and more entrepreneurship education and training programs have emerged, providing valuable knowledge and skills support to potential entrepreneurs.

2.5. Policy Support and Financial Guidance

The policy support and financial guidance given by the government in the development of the digital economy have also played a key role in the increase of entrepreneurial activity, as shown in the following: **tax incentives and financial support:** the government has reduced the initial

difficulty and risk of entrepreneurship by providing policy measures such as tax incentives and business subsidies. **Venture capital support:** investment projects in the digital economy are often more likely to receive venture capital support, which provides startups with the necessary financial security and development momentum. **Business incubators and gas pedals:** Government-supported business incubator and gas pedal programs provide startups with a full range of resources and support, including mentorship and marketing, which helps startups grow quickly.

3. Empirical Analysis and Results

In order to verify the impact of digital economy on urban entrepreneurial activity, this study selected panel data from several cities and conducted an empirical analysis using econometric methods. The results show that there is a significant positive correlation between digital economy and urban entrepreneurial activity. Specifically, the higher the level of development of the digital economy, the higher the level of urban entrepreneurial activity. This result further validates the positive role of digital economy in enhancing urban entrepreneurial activity.

3.1. Policy Recommendations

Based on the above theoretical and empirical analysis, this study proposes the following policy recommendations:

3.2. Strengthening Digital Economy Infrastructure

The government should increase investment in digital economy infrastructure, improve network coverage and quality, and provide entrepreneurs with a more stable and efficient network environment. It should also promote the popularization and application of cloud computing, big data and other technologies to provide entrepreneurs with more convenient and efficient technical support.

3.3. Optimizing the Policy Environment for the Digital Economy

The government should formulate more favorable policies on the digital economy and provide a more relaxed policy environment for entrepreneurs. For example, tax incentives and entrepreneurship support policies can be introduced to reduce the cost pressure and risk of entrepreneurs. In addition, intellectual property protection and law enforcement should be strengthened to safeguard the legitimate rights and interests of entrepreneurs.

3.4. Strengthening the Cultivation and Introduction of Digital Economy Talents

The Government should increase its efforts to cultivate and introduce digital economy talents to provide entrepreneurs with more professional and high-quality talent support. It can improve the digital literacy and innovation ability of entrepreneurs by establishing a digital economy talent pool and conducting digital economy training. At the same time, it should also actively introduce outstanding domestic and foreign digital economy talents to inject new vitality into the city's entrepreneurial development.

4. Conclusion and Outlook

Through theoretical and empirical analyses, this study delves into the mechanism of the digital economy's impact on

entrepreneurial activity in Chinese cities. It is found that the digital economy significantly promotes urban entrepreneurial activity by reducing entrepreneurial costs, improving market efficiency and optimizing resource allocation. Meanwhile, this study also puts forward targeted policy recommendations with a view to further utilizing the role of digital economy in promoting urban entrepreneurship development.

Looking ahead, as the digital economy continues to develop and innovate, its role in promoting urban entrepreneurship development will become more prominent. Therefore, the Government and all sectors of society should continue to strengthen their attention to and support for the digital economy, promote the deep integration of the digital economy and urban entrepreneurship development, and inject new impetus into the sustained and healthy development of the urban economy.

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